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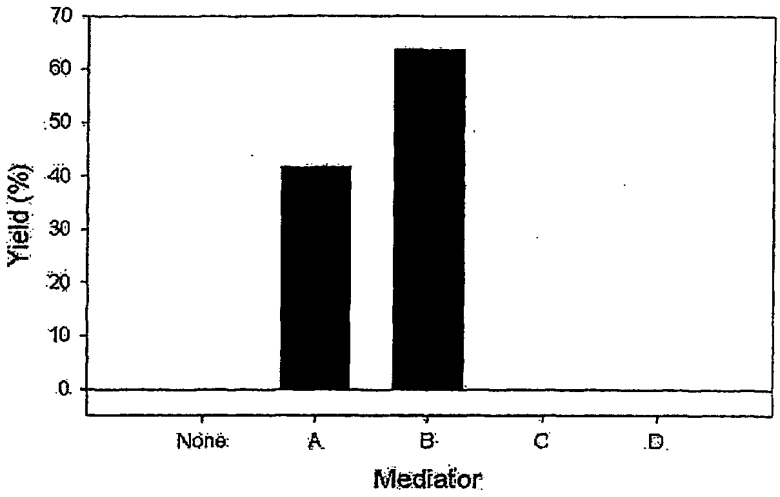
(54) Title: PROCESS FOR PREPARING PHENOL RESIN BY USING PHENOTHIAZINES MEDIATOR




(57) Abstract: The present invention relates to a process for preparing a phenolic polymer using a phenothiazine-based mediator, in particular, to a process for preparing a phenolic polymer via polymerization of phenolic monomers by using a phenothiazine-based mediator in the presence of peroxidase biocatalyst and an oxidant, thereby drastically improving the enzyme reactivity of peroxidase. The phenolic polymers prepared according to the polymerization of this invention maintain unsaturated hydrocarbon groups linked to their side chains, so that they are very useful as a curing resin because they can easily form coatings through radical curing. In addition, the coating formed using the curing resin has an antioxidation effect and a low surface energy, so that they can prevent physical attachment of marine livings. Because the antifouling-causing functional groups are not consumed, the coatings continuously exhibit durability.

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